Atlantic Fisheries and Social Science: A Guide to Sources

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ATLANTIC FISHERIES AND SOCIAL SCIENCE: A GUIDE TO SOURCES

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ABSTRACT

Lamson, C., and J.G. Reade. 1987. Atlantic fisheries and social science: a guide to sources. Can. Tech. Rep. Fish. Aquat. Sci. No. 1549:vi + 10 p.

Access to Atlantic fisheries social-science research is problematic for two reasons. First, research results are often not published in professional journals and therefore cannot be accessed through on-line computer searches of established data files. Second, because fisheries social-science research activity takes place throughout the region by academics, governmental and non-governmental organizations and industry personnel, centralization of information services has not been achieved. This report serves as a user's guide to Atlantic fisheries research literature and argues for the establishment of a more formalized fisheries social-science information network to serve future research requirements.

Key words: Atlantic fisheries - bibliographies, fishermen and fishing communities, maritime anthropology.

RÉSUMÉ

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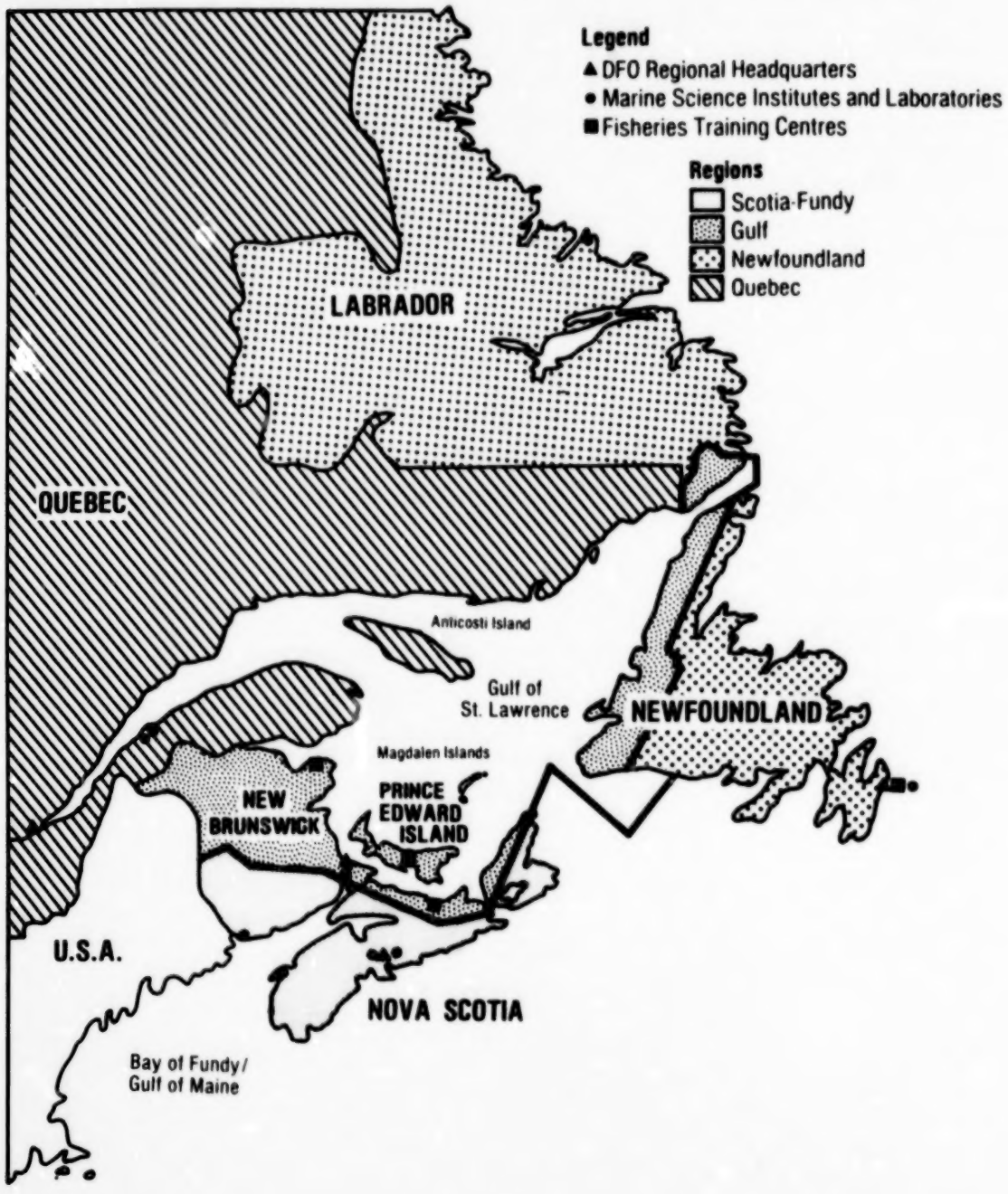
Ceux qui veulent étudier les sciences humaines de la pêche des provinces atlantiques doivent faire face à deux problèmes majeures. Premièrement, on ne trouve pas souvent les résultats des recherches dans les revues professionnelles; par conséquent, on n'a pas accès à ces résultats par catalogues en ligne. Deuxièmement, la diversité de chercheurs dans les universités, les organismes du gouvernement fédéral et provincial, les collectivités spécialisées, et les industries représente un obstacle à la centralisation des services. Ce rapport sert de guide à la documentation de recherche sur la pêche des provinces atlantiques. Pour faciliter les études sur les sciences humaines de la pêche à l'avenir, les auteurs recommandent qu'on établit un réseau d'information, pour assurer la liaison entre des personnes intéressées.

ATLANTIC CANADA FISHERIES REGIONS



INTRODUCTION

The fishing industry is the backbone of the Atlantic regional economy. Approximately 48,500 fishermen live in 1,400 communities scattered along the coastlines of the five eastern provinces - Nova Scotia, New Brunswick, Prince Edward Island, Quebec and Newfoundland and Labrador. The fish-processing sector also employs an estimated 48,000 workers in seasonal and full-time jobs (Task Force on Atlantic Fisheries 1982). Additional employment opportunities are provided through the marine services sector and fisheries management operations. Romeo LeBlanc, a former Minister of the Department of Fisheries and Oceans, once described the study of fisheries as a major cottage industry in the Atlantic Provinces but, despite the abundance of fisheries-related research and associated expertise in the region, no single institution has evolved to examine fisheries policy or the socio-cultural dimensions of fisheries management decisions on an ongoing basis.

Sources of scientific data about regional fisheries are located throughout the region at marine research centres such as the Bedford Institute of Oceanography (Dartmouth, Nova Scotia), the Huntsman Marine Laboratory and St. Andrews Biological Station (St. Andrews, New Brunswick), the Institut National de Recherche Scientifique (Rimouski, Quebec) and the Institut Maurice-Lamontagne (Ste. Flavie, Quebec). Libraries at universities with strong marine-science programmes, notably Université du Québec à Rimouski (Rimouski, Quebec), the Université de Moncton (Moncton, New Brunswick), Memorial University of Newfoundland (St. John's, Newfoundland) and Dalhousie University (Halifax, Nova Scotia), also maintain extensive oceanographic and marine-science collections. Information about industrial or technical developments and marine training programmes may be acquired at regional institutions such as: the Nova Scotia School of Fisheries (Pictou), the Technical University of Nova Scotia and the Nova Scotia Nautical Institute (Halifax), the Newfoundland and Labrador Institute of Fisheries and Marine Technology (St. John's), Prince Edward Island's Holland College (Charlottetown), Institut Maritime du Québec (Rimouski), and the New Brunswick School of Fisheries (Caraquet).

Access to, and retrieval of fisheries scientific literature is facilitated by several information systems, notably WAVES (a Department of Fisheries and Oceans bibliographic file that includes report or "gray" literature) and NTIS (the U.S. counterpart to WAVES). Other major abstracting services, such as Biological Abstracts, Food Science and Technology Abstracts and Aquatic Science and Fisheries Abstracts, provide access to the international scientific and technical literature of fisheries.

Access to fisheries social-science information, however, is more challenging because research is largely external to government and results may or may not be published in professional journals. Difficulties are compounded because no central clearinghouse, despository or comprehensive bibliographic reference tool exists to assist would-be users in finding materials relevant to current needs. This lack of centralized, continuously up-to-date information services proves costly in two respects. For individuals, the time required to find appropriate material represents a hidden but substantial research cost. The public, in turn, shoulders the financial burden whenever governments undertake major social and economic assessments of the Atlantic fishery. For example, the price tag attached to preparing the Canadian case for the Georges Bank dispute heard in the World Court was approximately $5 million. Other recent undertakings, including the Task Force on Atlantic Fisheries (popularly known as the Kirby Task Force), the Royal Commission on the Economic Union and Development Prospects for Canada (Macdonald Commission) and the Royal Commission on Seals and the Sealing Industry in Canada (Malouf Commission), also involved substantial allocations of public funds to locate, anaylze and systematize existing social-science data.

The need for improved information storage, retrieval and bibliographic services to assist fisheries social-science research in Atlantic Canada was first noted by Raoul Andersen in his seminal article, "The Need for Human Sciences Research in Atlantic Fisheries" (1978). An extensive bibliography of international fisheries social-science literature was subsequently published by an American maritime anthropologist, J.M. Acheson (1981). However, as a research tool or guide to the Atlantic Canadian fisheries, Acheson's bibliography falls somewhat short of serving user needs. This paper endeavours to survey the range of known fisheries social-science research materials, resource collections and centres of expertise in Atlantic Canada. The authors do not claim to have compiled a comprehensive reference tool by preparing this paper, but their goal is to expedite research by producing an introductory, multidisciplinary guide to fisheries social-science materials that will be useful to librarians, researchers and the general public.

ATLANTIC FISHERIES DEVELOPMENT: BACKGROUND READINGS

The social and economic aspects of regional fisheries development have been investigated by numerous federally and provincially sponsored task forces, commissions of inquiry and special fisheries committees. Reports of these investigations provide valuable background information about the changing social and economic circumstances of fishermen, fish processors and coastal communities throughout the twentieth century - see, for example, Fisheries of the Province of Quebec (Chambers 1912), Report of the Royal Commission Investigating the Fisheries of the Maritime Provinces and the Magdalen Islands (1928), the Newfoundland Fisheries Development Committee Report (1953), the Report of the Royal Commission to Inquire into the Inshore Fishery of Newfoundland and Labrador (1980), It Were Well to Live Mainly off Fish (NORDCO 1981), and Navigating Troubled Waters: A New Policy for the Atlantic Fisheries (Task Force on Atlantic Fisheries 1982). These documents also illustrate the vulnerability of fishermen vis-à-vis the marketplace, the marine environment, and the processing sector. For example, changes in resource availability caused economic hardship that resulted in the establishment of a Royal Commission into the Inshore Fishery of Newfoundland and Labrador (1980). The Task Force on Atlantic Fisheries (Kirby Task Force) was created in the aftermath of a region-wide economic crisis in 1982. The emergence of fishermen's cooperatives in the 1920s and 1930s and the founding of the Newfoundland Fishermen, Food and Allied Workers Union in the early 1970s correspond with periods of rising frustration experienced by fishermen in their relationships with fish merchants and processors. In addition to reports produced by government-sponsored inquiries, three studies by political economists should also be compulsory reading for all Atlantic fishery researchers: The Canadian Atlantic Fishery (Grant 1934), The Cod Fisheries: The History of an International Economy (Innis 1940), and The Decay of Trade: An Economic History of the Newfoundland Saltfish Trade, 1935-1965 (Alexander 1977; see also Alexander 1976).

Economists have played central roles in shaping Canadian fishery policy throughout the twentieth century. They have been called upon to design fisheries-related regional development programs, such as the Newfoundland Household Resettlement Program (see Copes 1972), and to assess the implications of restructuring fish harvesting and production activities (e.g., Department of Regional Economic Expansion 1976; Gardner 1984). Economists also participate in resource management by serving as consultants and advisers to governments. For example, the Economic Council of Canada has commissioned reports to stimulate debate about management options in particular fishery sectors such as the northern cod fishery (Munro 1980; Munro and McCorquodale 1981) and the Bay of Fundy herring fishery (Campbell 1981). The Future of the Atlantic

Fisheries (Weeks and Mazany 1983) was commissioned by the Institute for Research on Public Policy (IRPP) in 1980, prior to the establishment of the federal Task Force on the Atlantic Fishery. IRPP also supported a study of fishery and trade relations between New England, Quebec and the Atlantic Provinces (Mills and LeBlanc 1986).

The Department of Fisheries and Oceans' Economic Services Branch prepares periodic costs and earnings studies; see, for example, An Economic Assessment of the Newfoundland Small Boat Groundfish Fishery, 1979 (Legrow 1981) and Costs and Earnings of Selected Fishing Enterprises, Nova Scotia 1983 (1984). In addition, the federal Department of Fisheries and Oceans also undertakes to compile data concerning community reliance on the fishery, and a useful compendium on this topic, profiling fishing communities in the Scotia-Fundy Region, has recently been released (Raymond 1985; see also Poetschke 1984).

Academic sociologists and anthropologists have published numerous studies about Atlantic fishermen and community life. Core collections should include North Atlantic Maritime Cultures (Andersen 1979), North Atlantic Fishermen: Anthropological Essays on Modern Fishing (Andersen and Wadel 1972), Newfoundland Fishermen in the Age of Industry: A Sociology of Economic Dualism (Brox 1972), Cat Harbour: A Newfoundland Fishing Settlement (Faris 1972), Communities in Decline: An Examination of Household Resettlement in Newfoundland (Iverson and Matthews 1968), There's No Better Place than Here: Social Change in Three Newfoundland Communities (Matthews 1976), and Atlantic Fisheries and Coastal Communities (Lamson and Hanson 1984). Five special issues of professional journals should also be included in a basic reference library: "Canada and the Sea" Canadian Issues (Anon. 1980), "Les Sociétés de Pêcheurs" Anthropologie et Sociétés (Anon. 1981), "Fisheries" Journal of Canadian Studies, V. 19, No. 1 (Anon. 1984*a*), "Regional Science and Fisheries Analysis" Canadian Journal of Regional Science (Anon. 1984*b*), and "Labour Developments in the Fishing Industry" (Chaumel 1984).

The sociological literature of the Canadian Atlantic fisheries may be divided into three general categories: ethnographic studies about fishermen, fishing communities and resource exploitation strategies; studies about relations between producers and processors and organizational activities; and studies documenting response and adaptation to technological or policy changes.

ETHNOGRAPHIC STUDIES: FISHERMEN, FISHING COMMUNITIES AND RESOURCE EXPLOITATION

In addition to the classic volumes by Andersen and Wadel (1972), Brox (1972), and Andersen (1979), Atlantic fishing activities have been examined by Beaucage (1968), Wadel (1969), Geistdoerfer (1970), Andersen and Stiles (1973), Cove (1973), Balcom (1977), Martin (1979), Stiles (1976, 1979), Baril and Breton (n.d.), Blondin (n.d.), Breton (1980), Zulaika (1981), Bickerton (1983), Kearney (1983), Gray (1983), Wright (1984) and Davis (1984*a* and *b*). The first account of female participation in the fishery was produced by a Cape Breton group of fishing women (Department of the Secretary of State 1985). Work satisfaction and community attachment to fishing was studied by Apostle et al. (1985). Occupational hazards associated with offshore fishing were examined by Binkley (1984), and the Maritime Fishermen's Union (1986) undertook an exploratory study of the occupational health and safety issues confronting the inshore fishing sector.

The Atlantic fisheries have also been examined from the perspective of human ecology, and key studies include "Environment and Choice in Rapid Social Change" (Britan and Denich 1976), "Systems Ecology, People Ecology and the Anthropology of Fishing Communities" (McCay 1978), "Environmental Perception in Two Local Fisheries: A Case Study from Eastern Newfoundland" (Shortall 1973), Ecologie Culturelle de la Côte-Nord du Golfe Saint-Laurent (Charest 1972, 1981), "Savoir et Techniques des Pêcheurs des Îles de la Madeleine (Quebec) ou de Quelques Moyens de S'Approprier la Mer et Ses Ressources" (Geistdoerfer 1974), and Against the Wind: The Human Ecology of Hazard in the Newfoundland Inshore Fishery (Lamson 1981).

RELATIONS BETWEEN PRODUCERS AND PROCESSORS AND FISHERMEN'S ORGANIZATIONS

Studies about secondary production, fish processing, have focused primarily on the role of women in the industry; see Antler (1977), McFarland (1980), Connelly and MacDonald (1983), Women's Unemployment Study Group (1983), Apostle et al. (1985), and Ilcan (1985). The rise and demise of fishermen's cooperatives is examined by Cujes (n.d.), McInnes (1978), and Jentoft (1985). Relations between fishermen and fish merchants, and the struggle to gain collective bargaining rights are chronicled by Coaker (1930), Steinberg (1973, 1984), Cameron (1977), Barrett (1979, 1984), Williams (1979), Macdonald (1980), Munro and Stewart (1981), Neis (1981), Calhoun (1983), Clement (1984), Fairley (1984), Gurdon and Wright (1984), Inglis (1985), Sinclair (1983, 1984, 1985, 1986), and Legge and Thompson (1986).

RESPONSE AND ADAPTATION TO TECHNOLOGICAL AND POLICY CHANGES

Most social-science research related to Atlantic fisheries focuses on some aspect of response or adaptation to change. Change is brought about by shifting biological, economic, political or technological circumstances, usually beyond the control of fishermen (e.g., Morrow 1980; Pross 1984). Important studies documenting response to change include McCay (1976), Antler and Faris (1979), Britan (1979), Heaney (1979), Macdonald (1979), Miller (1979), Barrett (1984) and Kearney (1984). Change occurs also as a result of policy and management initiatives - see Report (Committee on Federal Licensing Policy 1974), McCracken and Macdonald (1976), MacKenzie (1979), Pepper (1979), Draper (1981), Kafka (1981), Barrett and Davis (1984), Macdonald (1984), Davis and Kasdan (1984), Apostle et al. (1984), Carter (n.d.), Kearney (1985), Fraser (1985), and Davis and Thiessen (1986) and House et al. (1986).

Other potentially useful, but often overlooked, sources of information for Atlantic fishery scholars and historians include literary works and biographical accounts. For example, Wallace's Shack Locker (1916) and Blue Water (1935) are still widely read and enjoyed as sea stories, but they also provide detailed pictures of life in the fishery during the first part of this century. Several novels of the same genre include The Way of the Sea (Duncan 1903) and Rockbound (Day 1928). Duncan's work is acclaimed by many as a stylized documentary about life in a remote Newfoundland outport fishing community, while Day's novel is a highly fictionalized account of everyday life in a small Nova Scotia island community. The Outport People (Mowat 1983) is an autobiographical portrait of life in Burgeo, a town on Newfoundland's south coast. More recent contributions to the literature of Atlantic fisheries include Fisherwoman (Ross 1984), Death on the Ice (Brown 1974) and a collection of short stories entitled The Lost Salt Gift of Blood (MacLeod 1976).

REGIONAL INFORMATION SOURCES

Due in part to jurisdictional fragmentation of fisheries administration and management, and in part to economic and political factors, most Canadian fisheries and marine research projects are conducted on a province-to-province basis, with a majority of studies being region- or sector-specific. Quebec is generally treated as an entity, separate and apart from its neighbouring eastern provinces, due to historic legal, cultural and linguistic differences.

QUEBEC

Information about Quebec fisheries may be obtained from the federal Department of Fisheries and Ocean's Quebec Region headquarters located in Quebec City. This office publishes a monthly newsletter, Entre Filets, to advise fishermen and the interested public about industry initiatives, development and current management policies. The Quebec office has also produced a useful overview document, L'Industrie des Pêches Maritimes du Québec (1985), and the province's Bureau de la Statistique issues annual summaries of fishery effort and landings data in two complementary documents, Statistiques des Pêches Maritimes du Québec and Pêche Commerciale (Quebec. Bureau de la Statistique). Persons interested in information pertaining to the changing socio-economic conditions of Quebec fishermen should refer to the work of Daneau, including Situation Economique de la Pêche Côtière du Québec (1964) and Le Québec et ses Pêches Maritimes: Une Analyse des Politiques et des Programmes (1984*a*), and to a 1978 conference report, Les Pêches Maritimes, sponsored by the Québec Conseil Executif, Secretariat des Conférences Socio-Économiques.

The 1,250-km coastline of the North Shore of the Gulf of St. Lawrence (from Tadoussac to Blanc Sablon) supports numerous coastal fishing communities, and the region has been a focal point for social and human ecological research by Université Laval and Université du Québec scholars since the 1960s. Major publications documenting fishing activities and life on the North Shore are Les Changements Socio-Culturels à Saint Augustin (Tremblay et al. 1969), and a special issue of Recherches Sociographiques, Vol. XI, Nos. 1-2 (1970) containing six essays devoted to the Lower North Shore region. The development and diversification of fishing in the Gulf of St. Lawrence is well documented in La Pêche sur le Saint-Laurent (Mousette 1979). Université Laval is planning to institute an undergraduate program in fisheries management and administration in 1986-87.

The Marine Resources Study Group, or the Groupe d'Etude des Ressources Maritimes (GERMA), and the Centre d'Intervention et de Recherche pour l'Amélioration des Situations de Travail (CIRAST), based at the Université du Québec à Rimouski, are emerging as focal points for interdisciplinary fisheries research. GERMA maintains a current list of research publications and CIRAST has begun publishing a newsletter to create an "information network concerning the workplace in the fishery."

The fisheries-and-marine-based economy of the Magdalen Islands has, like those of many other small island areas, attracted researchers from a variety of disciplines. Prinicipal sources of information about Magdalen Islanders' adaptation to the sea and surrounding marine resources include: Les Iles-de-la-Madeleine et les Madelinots (Hubert 1924); Capitaines des Hauts-Fonds (Landry 1978); Les Iles-de-la-Madeleine Face à Leur Destin (LeBlanc 1980) and a special issue of Recherches Sociographiques, Vol. XI, No. 3 (1970). Chantraine's book about the Gulf of St. Lawrence seal fisheries, The Living Ice (1980), tells a compelling narrative of human resiliency in the context of political oppression and geographic isolation for more than two centuries.

NEWFOUNDLAND AND LABRADOR

Sir Wilfred Grenfell, the medical doctor responsible for establishing a network of missionary medical posts on the Labrador coast, focused international attention on the plight of coastal fishermen. His writing, including Tales of the Labrador (1916) and Labrador Days: Tales of the Sea Toilers (1919), documents social conditions and the folkways of Labrador fishermen in the early part of the century. Probably the first academic study of the Labrador coast was Isolated Communities: A Study of a Labrador Fishing Village (Junek 1937). Subsequent social and cultural studies of Labrador communities have been undertaken by researchers from Memorial University of Newfoundland. These studies include Holding the Line: Ethnic Boundaries in a Northern Labrador Community (Kennedy 1981), and Breaking the Ice: Seal and Seal Harvesting Patterns and Benefits in Relation to Navigational Ice Breaking in Lake Melville, Labrador (Boles et al. 1983). Inuit land use and occupancy patterns in Labrador are comprehensively documented in Our Footprints are Everywhere (1977), published by the Labrador Inuit Association.

The Institute of Social and Economic Research (ISER) at Memorial Univeristy of Newfoundland has been a focal point for resource and community-oriented research since its creation in the 1960s. Other Memorial University information resources include the Archives of the Maritime History Group, the Folklore and Language Archives, the Whale Research Group (Department of Psychology), and the Newfoundland Studies Centre (housed in the university's Queen Elizabeth II Library). The university's extension division publishes a monthly magazine, Decks Awash, often profiling people and resources of specific regions in the province. The extension service has also published The Fishery of Newfoundland and Labrador (Le Messurier and Sherk 1980), used as a social science text in provincial schools.

Headquarters for the Newfoundland Region of the federal Department of Fisheries and Oceans is located in St. John's. In addition to the Department's communications branch (which issues a quarterly newsletter, Fo'c'sle), an extensive library is maintained at the Northwest Atlantic Fisheries Research Centre, also located in the capital city. Responsibility for fisheries and community development rests largely with provincial authorities, and the Department of Fisheries has published two major planning documents, Setting a Course (1978) and a comprehensive 5-volume report, Inshore Fishing Port Assessment Study (1980). The Department of Fisheries also commissioned a study by NORDCO Ltd. called "It Were Well to Live Mainly Off Fish": The Place of Northern Cod in Newfoundland's Development (1981), at the height of the controversy over rights of access to northern cod stocks. The province's Fishing Industry Advisory Board is a quasi-independent agency charged with the responsibility of promoting improved industry performance and enlarging marketing opportunities. Three other sources of Newfoundland and Atlantic fisheries news may be useful aids for social scientists interested in following industry developments - the Union Forum, a bimonthly newsletter of the Newfoundland Fishermen, Food and Allied Workers Union; Fisherman's Broadcast, a daily (local) CBC-radio program, and Land and Sea, a weekly (local) CBC-television program.

NOVA SCOTIA

The best introductory sources to the Nova Scotia fisheries are Sea, Salt and Sweat (Nova Scotia Department of Fisheries 1977) and Fishermen of Nova Scotia (Jensen 1980). These volumes complement the Nova Scotia Fisheries Atlas (1982), prepared for the provincial Department of Fisheries. The atlas contains fourteen maps illustrating principal fishing ports, quantity and value of fish landings (by species), fleet sectors,

employment, onshore facilities and infrastructure, and fish product exports. The department also publishes an annual Nova Scotia Fisherman's Handbook, a directory of provincial services, personnel, and managment activities.

The federal Department of Fisheries and Oceans has divided responsibility for the Nova Scotia fisheries into two regions, the Scotia-Fundy Region (headquarters in Halifax) and Gulf Region (headquarters in Moncton, N.B., with a regional office in Antigonish, N.S.). The Scotia-Fundy Region publishes a newsletter four times a year (Fisheries News), an annual report, and occasional discussion papers. News from the Gulf Region is published in Sonar, a quarterly newsletter, and in annual reports. Social-science researchers will inevitably need to make contact with both federal and provincial fisheries department personnel to obtain up-to-date data, as well as unpublished information about specific fishery sectors.

Nova Scotia fishermen are an extremely diversified group in terms of location, effort, species fished, capital investment, income, organization and representation. The Kirby task force report, Navigating Troubled Waters (1982), suggests that the disparities among fishermen may be atributed to level of effort (i.e., full- versus part-time), species fished, and location of fishing enterprise. In recent years, considerable research effort has been exerted in southwest Nova Scotia in preparation for arguing Canada's position at the International Court of Justice to resolve a long-standing ocean boundary dispute with the U.S. in the Gulf of Maine/Georges Bank region. The Fish Feud: the U.S.-Canadian Boundary Dispute (VanderZwaag 1983), is a thorough analysis of the events leading up to submission of the case to the court. More than $5 million was expended in the effort to prepare materials for the case and, collectively, the memorial and supporting documents comprise a substantial collection of resource material for subsequent research activity. Spin-off projects from the case should also be noted: researchers from Dalhousie University and the Gorsebrook Institute at St. Mary's University have continued to investigate specific fishery-related questions such as structure and dynamics of fishermen/fish-processor relations, international trade practices, and community-impact studies. Social scientists at the Université Sainte-Anne (Pointe-de-l'Eglise) and Acadia University (Wolfville) are also involved in fisheries research in southwest Nova Scotia, while faculty at the University College of Cape Breton (Sydney) and St. Francis Xavier University (Antigonish) have been involved with resource management and community development research in the Cape Breton, eastern shore and Northumberland Strait areas.

Other centres for information about fisheries in Nova Scotia and the northwest Atlantic region include the School of Resource and Environmental Studies, the Dalhousie Ocean Studies Programme and the Marine Environmental Law Programme at Dalhousie University (Halifax). The Dalhousie Law School produces a Marine Affairs Bibliography (1981-) that offers comprehensive coverage of legal and policy-related fisheries literature, but falls short with respect to sociological and anthropological fisheries literature. The Public Archives of Nova Scotia and the Maritime Museum of the Atlantic (Halifax), the Beaton Institute at the University College of Cape Breton (Sydney), and the Fisheries Museum of the Atlantic (Lunenburg), have valuable collections of historical source materials. Finally, fishermen's and fish-processing organizations such as the Eastern Fishermen's Federation (EFF), the Maritime Fishermen's Union (MFU), the Canadian Seafood Workers Union (CSWU), and the Seafood Producers Association of Nova Soctia (SPANS) have offices in the Halifax area and may be helpful points of contact for current fisheries information. CBC-Halifax produces a weekly television program, Land and Sea, providing an avenue for public dissemination of topical marine affairs information. The Sou'wester, a Yarmouth-based, monthly newspaper, is a good source for regional fisheries news.

PRINCE EDWARD ISLAND

There are relatively few sources of information about the fisheries of Prince Edward Island. However, statistical data may be obtained from the federal Department of Fisheries and Oceans at the Gulf Region headquarters (Moncton, New Brunswick) or through the P.E.I. provincial Department of Fisheries' offices located in Charlottetown. Two brief histories of the development of P.E.I. fisheries are available: The Fishery of Prince Edward Island (Wells 1986) and Histoire de la Pêche Chez les Acadiens de l' Ile-du-Prince Edouard (Gallant and Arsenault 1980). In addition, a provincially sponsored study into marketing and other fishing problems was conducted from 1980 to 1981, and a 2-volume Report on the Commission of Enquiry into the P.E.I. Fishery - the Weeks' Commission (Prince Edward Island 1981) is available. The Atlantic Fisherman, a biweekly fisheries newspaper, began publishing from Charlottetown in 1984, superseding the Canadian Fishing Report (Ottawa). The paper is distributed to fishermen throughout Atlantic Canada.

NEW BRUNSWICK

There are three general categories of fishermen in New Brunswick: native, Acadian or French-speaking, and English-speaking. The province is bilingual and information may be obtained in both official languages (French and English) from the provincial Department of Fisheries (Fredericton) or the federal Department of Fisheries and Oceans' Gulf Region headquarters in Moncton. The province publishes an occasional fisheries newsletter, Fisherman's Line, and the federal unit issues Sonar, a quarterly newsletter. The province produced a Fisheries Development Plan, 1980-1985 that provides an up-to-date assessment of fisheries operations and future requirements of various fleet sectors.

Fisheries have a lower profile in New Brunswick as compared with forest and agricultural resource sectors; however, a number of scholars at the University of New Brunswick and the University of Moncton are involved with the social aspects of fisheries management and development. In 1983, the federally supported marine biology research center was opened at the University of Moncton. In addition, the headquarters of both the Maritime Fishermen's Union and the United Maritime Fishermen (UMF) are located in Moncton.

CONCLUSION: INFORMATION NEEDS

The challenge confronting social scientists in eastern Canada is trying to locate all sources of potentially relevant fisheries information. In addition to consulting with federal and provincial fisheries department personnel, faculty at academic institutions, and industry representatives, several other agencies should be tapped as potential data sources. For example, as a consequence of offshore hydrocarbon exploration activities, social-science research has been undertaken to identify potential conflicts among regional fishing, shipping, and oil and gas industries. Assessment studies of the proposed Venture and Hibernia fields (offshore Nova Scotia and Newfoundland) have generated a wealth of information in reports such as A Study of the Potential Socio Economic Effects on the Newfoundland Fishing Industry from Offshore Petroleum Development (NORDCO 1982) and A Study of the Potential Socio-Economic Effects upon the Nova Scotia Fishery from Offshore Petroleum Development (NORDCO 1983). Potential environmental and social impacts of offshore development are evaluated in summary form in the Venture and Hibernia environmental assessment and review panel reports (Nova Scotia Department of the Environment 1983; Canada-Nova Scotia 1984; Newfoundland 1985).

In summary, the diversity of potential information sources is one of the major stumbling blocks for those studying the fishery from the social-science perspective. So many institutions have concerned themselves with the fishery at one time or another - universities, museums, federal and provincial governments, political organizations, unions, major corporations - that there is always the lurking suspicion that some useful, but unknown, source remains to be exploited, if only its existence could be uncovered. The problem is compounded because materials exist in a variety of formats, ranging from academic monographs to popularized corner-store productions. Relevant information may be found in scholarly journals, daily newspapers, institutional newsletters, technical reports, and in government documents. Another difficulty confronting researchers and librarians alike is that subject matter and source materials may be classified under a variety of subject headings. Information about the Atlantic fishery may be classified as political science, economics, ocean management, fisheries biology, sociology, anthropology, etc. Assigning meaningful subject headings to source materials is a dilemma for librarians, and finding appropriate headings in library collection catalogues is a challenge for even the most resourceful researcher.

In view of both the wealth and diversity of fisheries-related social-science research materials, there is a pressing need to establish (or designate) a regional depository for all marine-related documents. Such an institution should be staffed by career-oriented professionals who are charged with responsibility for keeping up-to-date in certain topical areas, e.g., community studies, technology development or resource policy. The recent Georges Bank boundary dispute and the Kirby task force review of the Atlantic fishing industry are but two examples of occasions when access to comprehensive collections in a centralized depository could have facilitated the research phase of report preparation. However, in both instances a vast array of inter-disciplinary materials was collected independently, and eventually deposited with the two federal government agencies responsible for the undertakings (Department of External Affairs and Department of Fisheries and Oceans in Ottawa). If a centralized, regional depository existed, it would likely assume a major stewardship role for housing and disseminating information from such collections.

Once a central information bureau is established, an informational exchange network should be formalized, and a continuously updating bibliographic reference service established. Such visions are not beyond the scope of reality, and we may look to initiatives by arctic specialists such as the Northern Science Network (secretariat located at the Boreal Institute for Northern Studies, University of Alberta) and the Arctic Science and Technology Information System (ASTIS), a literature abstracting and indexing system produced by the Arctic Institute of North America at Calgary. The libraries of the Department of Fisheries and Oceans have set up WAVES, a national fisheries and marine science bibliographic database for the use of departmental staff. In the United States, a "Fisheries Social-Science Network" has been established by Peter Fricke, the fisheries anthropologist of the National Oceanic and Atmospheric Administration (NOAA), Department of Commerce. Membership in the network is open to Canadian researchers and, somewhat ironically, the quarterly newsletter produced in Washington, D.C., is the most comprehensive vehicle for communications about fisheries social-science activities in Canada.

If Canada is committed to achieving international excellence in fisheries management, maintaining comprehensive information services must be a primary national goal. Social scientists and librarians may contribute to the fisheries management enterprise by helping fishermen and the industry at large to identify their information needs and by filling gaps where they exist. Providing competent and useful informational assistance may be, in the end, the most positive contribution fisheries information professionals could aspire to achieve.

REFERENCES

Acheson, J.M. 1981. Anthropology of fishing. Annual Review of Anthropology 10:275-316.

Alexander, D. 1976. The political economy of fishing in Newfoundland. Journal of Canadian Studies 11:32-40.

- 1977. The decay of trade: an economic history of the Newfoundland saltfish trade, 1935-1965. Newfoundland Social and Economic Studies No. 19, Institute of Social and Economic Research (ISER), Memorial University of Newfoundland, St. John's. 173 p.

Andersen, R. 1978. The need for human sciences research in Atlantic fisheries. J. Fish. Res. Board Canada 35:1031-1049.

- 1979. North Atlantic maritime cultures. Mouton, The Hague. 365 p.

- 1980. Millions of fish. Canadian Issues 3(1):127-139.

Andersen, R., and R.G. Stiles. 1973. Resource management and spatial competition in Newfoundland fishing: an exploratory essay. Pages 44-46 *in* P.H. Fricke, ed. Seafarer and community. Croom Helm, London.

Andersen, R., and C. Wadel. 1972. North Atlantic fishermen: anthropological essays on modern fishing. Newfoundland Social and Economic Papers No. 5, ISER, Memorial University of Newfoundland, St. John's. 174 p.

Anonymous. 1970*a*. La Basse-Côte-Nord du Saint Laurent. Recherches Sociographiques XI(1-2).

Anonymous. 1970*b*. Les Iles-de-la-Madeleine. Recherches Sociographiques XI(3).

Anonymous. 1980. Canada and the Sea. Canadian Issues 3(1).

Anonymous. 1981. Les sociétés de pêcheurs. Anthropologie et Sociétés 5(1).

Anonymous. 1984*a*. Fisheries. Journal of Canadian Studies 19(1).

- 1984*b*. Regional science and fisheries analysis. Canadian Journal of Regional Science 7(2).

Antler, E. 1977. Women's work in Newfoundland fishing families. Atlantis 2(2):106-113.

Antler, E., and J. Faris. 1979. Adaptation to changes in technology and government policy. Pages 129-154 *in* R. Andersen, ed. North Atlantic maritime cultures. Mouton, The Hague.

Apostle, R., G. Barrett, A. Davis and L. Kasdan. 1985. Land and sea: the structure of fish processing in Nova Scotia: a preliminary report. Project Report 1-85, Gorsebrook Research Institute on Atlantic Canada Studies, St. Mary's University, Halifax.

Apostle, R., L. Kasdan and A. Hanson. 1984. Political efficacy and political activity among fishermen in southwest Nova Scotia. Journal of Canadian Studies 19(1):157-165.

- 1985. Work satisfaction and community attachment among fishermen in southwest Nova Scotia. Can. J. Fish. Aquat. Sci. 42:256-267.

Balcom, B.A. 1977. History of the Lunenburg fishing industry. Lunenburg Marine Museum Society, Lunenburg. 71 p.

Baril, G., and Y. Breton. n.d. Fishing and cultural tradition on the Lower North Shore. Ministère des Affaires Culturelles du Québec, Québec. 34 p.

Barrett, L.G. 1979. Underdevelopment and social movements in the Nova Scotia fishing industry to 1938. Pages 127-160 *in* R.J. Brym and R.J. Sacouman, eds. Underdevelopment and social movements in Atlantic Canada. New Hogtown Press, Toronto.

- 1984. Capital and the state in Atlantic Canada: the structural context of fishery policy between 1939 and 1977. Pages 77-104 *in* C. Lamson and A.J. Hanson, eds. Atlantic fisheries and coastal communities. Dalhousie Ocean Studies Programme and the Institute for Resource and Environmental Studies, Dalhousie University, Halifax.

Barrett, L.G., and A. Davis. 1984. Floundering in troubled waters: the political economy of the Atlantic fishery and the Task Force on Atlantic Fisheries. Journal of Canadian Studies 17(1):125-137.

Beaucage, P. 1968. Technologie de la pêche au loup-marin sur la côte nord du Saint Laurent. L'Homme 8(3):96-125.

Bickerton, C. 1983. A history of the Canadian fisheries in the Georges Bank area. Annexes to the Counter-Memorial submitted by Canada (V. 11) to the International Court of Justice, delimitation of the maritime boundary in the Gulf of Maine area. Ottawa. 168 p.

Binkley, M. 1984. Impact of changes in the Nova Scotia fishery on occupational health and safety of trawlermen. Pages 2-4 *in* J.-L. Chaumel, ed. Labour developments in the fishing industry. Can. Spec. Publ. Fish. Aquat. Sci. 72, Department of Fisheries and Oceans, Ottawa.

Blondin, D. n.d. People of the land and people of the sea: an economic history of the lower North Shore. Ministère des Affaires Culturelles du Québec, Québec. 23 p.

Boles, B., L. Jackson and M.A. Mackey. 1983. Breaking the ice: seal and seal harvesting patterns and benefits in relation to navigational ice breaking in Lake Melville, Labrador. Labrador Institute of Northern Studies, Goose Bay. 147 p.

Breton, Y. 1980. A comparative study of work groups in an eastern Canadian peasant fishing community: bilateral kinship and adapative processes. Pages 129-154 *in* A. Spoehr, ed. Maritime adaptations: essays on contemporary fishing communities. University of Pittsburgh Press, Pittsburgh.

Britan, G. 1979. 'Modernization' on the North Atlantic coast: the transformation of a traditional Newfoundland fishing village. Pages 65-81 *in* R. Andersen, ed. North Atlantic maritime cultures. Mouton, The Hague.

Britan, G., and B.J. Denich. 1976. Environment and choice in rapid social change. American Ethnologist 3:55-72.

Brown, C. 1974. Death on the ice: the great Newfoundland sealing disaster of 1914. Doubleday Canada, Toronto. 268 p.

Brox, O. 1972. Newfoundland fishermen in the age of industry: a sociology of economic dualism. Social and Economic Studies No. 9, ISER, Memorial University of Newfoundland, St. John's. 113 p.

Calhoun, S. 1983. The Lockeport lockout: an untold story in Nova Scotia's labour history. Kentville Publishing, Kentville. 24 p.

Cameron, S.D. 1977. The education of Everett Richardson: the Nova Scotia fishermen's strike, 1970-1971. McClelland and Stewart, Toronto. 239 p.

Campbell, H.F. 1981. The Bay of Fundy herring fishery. Technical Report No. 20. The public regulation of commercial fisheries in Canada. Case Study No. 5. Economic Council of Canada, Ottawa. 43 p.

Canada. 1982. Memorial submitted to the International Court of Justice, delimitation of the maritime boundary in the Gulf of Maine area (Canada) United States of America. Ottawa. 208 p.

Canada-Nova Scotia Offshore Oil and Gas Board. 1984. Socio-economic review: the Venture development project. Halifax. 92 p.

Carter, R. n.d. Something's fishy: public policy and private corporations in the Newfoundland fishery. St. John's Oxfam Committee, St. John's. 33 p.

Chambers, E.T.D. 1912. Fisheries of the province of Quebec. Department of Colonization, Mines and Fisheries, Quebec City.

Chantraine, P. 1980. The living ice. McClelland and Stewart, Toronto. 238 p.

Charest, P. 1972. Ecologie culturelle de la Côte-Nord du Golfe Saint-Laurent. Laboratoire d' anthropologie, Université Laval, Quebec. 144 p.

- 1981. Contraintes écologiques et pêcheries sédentaires sur la Basse Côte Nord du Golfe Saint-Laurent. Anthropologie et Sociétés 5(1):29-56.

Chaumel, J.L., ed. 1984. Labour developments in the fishing industry. Can. Spec. Publ. Fish. and Aquat. Sci. 72, Department of Fisheries and Oceans, Ottawa. 90 p.

Clement, W. 1984. Canada's coastal fisheries: formation of unions, cooperatives, and associations. Journal of Canadian Studies 19(1):5-33.

- 1986. The struggle to organize: resistence in Canada's fishery. McClelland and Stewart Ltd., Toronto. 219 p.

Coaker, W.F., ed. 1930. The history of the Fishermen's Protective Union of Newfoundland, from 1909-1929. Advocate Publishing Co., St. John's. 395 p.

Committee on Federal Licensing Policy and Its Implications for the Newfoundland fisheries. 1974. Report. Memorial University of Newfoundland, St. John's. 50 p.

Connelly, M.P., and M. MacDonald. 1983. Women's work: domestic and wage labour in a Nova Scotia community. Studies in Political Economy 10:45-72.

Copes, P. 1972. The resettlement of fishing communities in Newfoundland. Canadian Council on Rural Development, Ottawa. 259 p.

- 1980. Fish and the public interest: the problems in Newfoundland. Canadian Issues 3(1):103-113.

- 1983. Fisheries management on Canada's Atlantic coast: economic factors and socio-political constraints. Canadian Journal of Regional Science 6(1):1-32.

Cove, J.J. 1973. Hunters, trappers, and gatherers of the sea: a comparative study of fishing strategies. J. Fish. Res. Board Canada 30(1):249-259.

Cujes, R. n.d. Fishermen's co-operatives in Nova Scotia. Canadian International Centre of Research and Information on Public and Cooperative Economy, Montreal. 62 p.

Daneau, M. 1964. Situation économique de la pêche côtière du Québec. Ministère de l'Industrie et du Commerce du Québec, Division des Pêcheries, Québec City. 167 p.

- 1984*a*. Le Québec et ses pêches maritimes: une analyse des politiques et des programmes. Cahier 8404. Departement d'Economique, Université Laval, Québec, Québec. 185 p.

- 1984*b*. Les relations Québec-Canada en matière de pêches maritimes. Cahier 8420. Departement d'Economique, Québec, Québec. 46 p.

Davis, A. 1984*a*. Property rights and access management in the small boat fishery: a case study from southwest Nova Scotia. Pages 133-164 *in* C. Lamson and A.J. Hanson, eds. Atlantic fisheries and coastal communities. Dalhousie Ocean Studies Programme and the Institute for Resource and Environmental Studies, Dalhousie University, Halifax.

- 1984*b*. You're your own boss: an economic anthropology of small boat fishing in Port Lameron Harbour, southwest Nova Scotia. Ph.D. dissertation. University of Toronto.

Davis, A., and L. Kasdan. 1984. Bankrupt government policies and belligerent fishermen responses: dependency and conflict in the southwest Nova Scotia small boat fisheries. Journal of Canadian Studies 19(1):108-124.

Davis, A., and V. Thiessen. 1986. Making sense of the dollars: income distribution among Atlantic Canadian fishermen and public policy. Marine Policy, 10(2):201-214.

Day. F.P. 1928. Rockbound. Rev. ed. 1973. University of Toronto Press, Toronto. 292 p.

Department of Fisheries and Oceans. Economic Services Branch. 1984. Costs and earnings of selected fishing enterprises, Nova Scotia 1983. Halifax. 63 p.

Department of Fisheries and Oceans. Québec Region. 1985. L'industrie des pêches maritime du Québec - description statistique. Québec City. 184 p.

Department of Regional Economic Expansion. 1976. Community and employment implications of restructuring the Atlantic groundfisheries. Ottawa. 106 p.

Department of the Secretary of State. Women's Programme. 1985. Report of the awareness for women in the fishery project. Halifax. 45 p.

Draper, D. 1981. Oceans exploitation: efficiency and equity questions in fisheries management. Pages 109-151 *in* B. Mitchell and W.R.D. Sewell, eds. Canadian resource policies: problems and prospects. Metheun, Toronto.

Duncan, N. 1903. The way of the sea. Rev. ed. 1982. Tecumseh Press, Ottawa. 332 p.

Fairley, B.D. 1984. The 'metaphysics' of dualism and the development of capitalism in the fishing industry in Newfoundland. Studies in National and International Development, Occasional Papers No. 84-101. Queen's University, Kingston. 56 p.

Faris, J. 1972. Cat Harbour: a Newfoundland fishing settlement. Social and Economics Studies No. 3, ISER, Memorial University of Newfoundland, St. John's. 176 p.

Fraser, C.A. 1985. Groundfish management by property rights: the southwest Nova Scotia case. M.E.S. Thesis. Dalhousie University, Halifax. 135 p.

Gallant, C., and G. Arsenault. 1980. Histoire de la pêche chez les Acadiens de l' Ile-du-Prince Edouard. La Société Saint-Thomas d' Aquin, Summerside. 52 p.

Gardner, P. 1984. Regional development and optimal management of the Prince Edward Island lobster fishery. Canadian Journal of Regional Science 7(2):227-249.

Geistdoerfer, A. 1970. L'evolution techno-économique de la pêche côtière. Recherches Sociographiques XI(3):289-300.

- 1974. Savoir et techniques des pêcheurs des Iles de la Madeleine (Québec) ou de quelques moyens de s'approprier la mer et ses ressources. Journal d'Agriculture Tropicale et de Botanique Appliquée XXI(7, 8 and 9):169-217.

Grant, R.F. 1934. The Canadian Atlantic fishery. Ryerson Press, Toronto. 147 p.

Gray. A. 1983. The offshore, small boat fishery of southwest Nova Scotia. M.E.S. Thesis. Dalhousie University, Halifax. 191 p.

Grenfell, W.T. 1916. Tales of the Labrador. Houghton Mifflin, Boston. 240 p.

- 1919. Labrador days: tales of the sea toilers. Houghton Mifflin, Boston. 231 p.

Gurdon, M.A., and J.D. Wright. 1984. Collective bargaining in the maritime fishing industry: recent developments. Relations Industrielles/Industrial Relations 39(2):259-263.

Heaney, W.H. 1979. Innovative enterprise and social change: a case study of resource control and social transactions in a Quebec maritime community. Pages 209-238 *in* R. Andersen, ed. North Atlantic maritime cultures. Mouton, The Hague.

Hibernia Environmental Assessment Panel. 1985. Hibernia development project: report of the environmental assessment panel. Ottawa. 62 p.

House, D., M. Hanrahan and D. Simms. 1986. Fisheries policies and community development: proposal for a revised approach to managing the inshore fisheries in Newfoundland. Background Report, Royal Commission on Employment and Unemployment, Newfoundland and Labrador, St. John's. 214 p.

Hubert, P. 1924. Les Iles-de-la-Madeleine et les Madelinots. Rev. ed. 1979. Les Editions de la Source, Iles-de-la-Madeleine. 251 p.

Ilcan, S. 1985. The social organization of the Nova Scotia secondary fishing industry: a community-based study. M.A. Thesis. Dalhousie University, Halifax. 212 p.

Inglis, G. 1985. More than just a union: the story of the NFFAWU. Jesperson Press, St. John's. 331 p.

Innis, H.A. 1940. The cod fisheries: the history of an international economy. Rev. ed. University of Toronto Press, Toronto. 522 p.

Iverson, N., and D.R. Matthews. 1968. Communities in decline: an examination of household resettlement in Newfoundland. Newfoundland Social and Economic Studies No. 6, ISER, Memorial University of Newfoundland, St. John's. 169 p.

Jensen, L.B. 1980. Fishermen of Nova Scotia. Petheric Press, Halifax. 114 p.

Jentoft, S. 1985. Models of fishery development: the cooperative approach. Marine Policy 9(4):322-331.

Junek, O.W. 1937. Isolated communities: a study of a Labrador fishing village. American Book Co., New York. 130 p.

Kafka, J.W. 1981. The fisheries policy process: a case study of the Atlantic bluefin tuna. M.A. Thesis. Dalhousie University, Halifax. 378 p.

Kearney, J.F. 1983. Common tragedies: a study of resource access in the Bay of Fundy herring fisheries. M.E.S. Thesis. Dalhousie University, Halifax. 441 p.

- 1984. The transformation of the Bay of Fundy herring fisheries, 1976-1978: an experiment in fishermen-government co-management. Pages 165-203 *in* C. Lamson and A.J. Hanson, eds. Atlantic fisheries and coastal communities. Dalhousie Ocean Studies Programme and the Institute for Resource and Environmental Studies, Dalhousie University, Halifax.

- 1985. Working together: a study of fishermen's response to government management of the district 4A lobster fishery. Université Sainte-Anne, Pointe-de-l'Eglise. 85 p.

Kennedy, J.C. 1981. Holding the line: ethnic boundaries in a northern Labrador community. Social and Economic Studies No. 27, ISER, Memorial University of Newfoundland, St. John's. 171 p.

Labrador Inuit Association. 1977. Our footprints are everywhere: Inuit land use and occupancy in Labrador. Nasir. 380 p.

Lamson, C. 1981. Against the wind: the human ecology of hazard in the Newfoundland inshore fishery. M.E.S. Thesis. Dalhousie University, Halifax. 160 p.

- 1986*a*. On the line: women and fish plant jobs in Atlantic Canada. Relations Industrielles/Industrial Relations 41(1):145-156.

- 1986*b*. Planning for resilient coastal communities: lessons from ecological systems theory. Coastal Zone Management Journal 13(3/4):265-280.

Lamson, C., and A.J. Hanson, eds. 1984. Atlantic fisheries and coastal communities: fisheries decision-making case studies. Dalhousie Ocean Studies Programme and the Institute for Resource and Environmental Studies, Dalhousie University, Halifax. 252 p.

Landry, F. 1978. Capitaines des hauts-fonds. Leméac, Montréal. 143 p.

LeBlanc, M. 1984. Fisheries administration in Canada: a synopsis. Pages 243-251 *in* C. Lamson and A.J. Hanson, eds. Atlantic fisheries and coastal communities. Dalhousie Ocean Studies Programme and the Institute for Resource and Environmenal Studies, Dalhousie University, Halifax.

LeBlanc, Y. 1980. Les Iles-de-la-Madeleine face à leur destin. Leméac, Montréal. 324 p.

Legrow, R.G. 1981. An economic assessment of the Newfoundland small boat groundfish fishery, 1979. Department of Fisheries and Oceans, Economic Services Branch, St. John's. 116 p.

Legge, W., and R. Thompson. 1986. Community based organizations in the fish processing industry in Newfoundland and Labrador. Background report, Royal Commission on Employment and Unemployment, Newfoundland and Labrador. St. John's. 132p.

Le Messurier, S.L., and S. Sherk, eds. 1980. The fishery of Newfoundland and Labrador. Extension Service, Memorial University of Newfoundland, St. John's. 151 p.

Macdonald, D. 1980. Power begins at the cod end: the Newfoundland trawlermen's strike, 1974-75. Social and Economic Studies No. 26, ISER, University of Newfoundland, St. John's. 160 p.

Macdonald, R.D.S. 1979. Inshore fishing interests on the Atlantic coast - their response to extended jurisdiction by Canada. Marine Policy 3(3):171-189.

- 1980. Fishermen's incomes, and inputs and outputs in the fisheries sector: the P.E.I. case. Canadian Issues 3(1):25-35.

- 1984. Canadian fisheries policy and the development of Atlantic coast groundfisheries management. Pages 15-75 *in* C. Lamson and A.J. Hanson, eds. Atlantic fisheries and coastal communities. Dalhousie Ocean Studies Programme and the Institute for Resource and Environmental Studies, Dalhousie University, Halifax.

MacKenzie, W.C. 1979. Rational fishery management in a depressed region: the Atlantic groundfishery. J. Fish. Res. Board Canada 36(7):811-826.

MacLeod, A. 1976. The lost salt gift of blood. McClelland and Stewart, Toronto. 187 p.

Maritime Fishermen's Union. 1986. Fatalities and injuries in the inshore fishing industry. Moncton, N.B. 30 p.

Martin, K.O. 1979. Play by the rules or don't play at all: space division and resource allocation in a rural Newfoundland fishing village. Pages 277-298 *in* R. Andersen, ed. North Atlantic maritime cultures. Mouton, The Hague.

Matthews, R. 1976. There's no better place than here: social change in three Newfoundland communities. Peter Martin Associates, Toronto. 164 p.

- 1980. Class interests and the role of the state in the development of Canada's east coast fishery. Canadian Issues 3(1):115-124.

McCay, B.J. 1976. Appropriate technology and coastal fishermen of Newfoundland. Ph.D. dissertation. Columbia University, New York. 285 p.

- 1978. Systems ecology, people ecology, and the anthropology of fishing communities. Human Ecology 6(4):397-422.

McCracken, F.D., and R.D.S. Macdonald. 1976. Science for Canada's Atlantic inshore seas fisheries. J. Fish. Res. Bd. Canada 33(9):2097-2139.

McFarland, J. 1980. Changing modes of social control in a New Brunswick fish packing town. Studies in Political Economy 4:99-113.

McInnes, D.W. 1978. The Antigonish movement and identity. Ph.D. dissertation. McMaster University.

Miller, R.J. 1979. Social rationales for management of a crab fishery. Fisheries 4(6):28-31.

Mills, H., and M. LeBlanc. 1986. The fishery: the impacts of politics and economics on trade. Pages 189-237 *in* W. Shipman, ed. Trade and investment across the northeast boundary: Quebec, the Atlantic Provinces and New England. Institute for Research on Public Policy, Montreal.

Morrow, J.B. 1980. National fisheries policy: the perspective of industry. Candian Issues 3(1):95-101.

Mousette, M. 1979. La pêche sur le Saint-Laurent: répertoire des méthodes et des engins de capture. Boréal Express, Montréal. 212 p.

Mowat, C. 1983. The outport people. McClelland and Stewart, Toronto. 271 p.

Munro, G. 1980. A promise of abundance: extended fisheries jurisdiction and the Newfoundland economy. Economic Council of Canada, Ottawa. 111 p.

Munro, G., and S. McCorquodale. 1981. The northern cod fishery of Newfoundland. Technical Report No. 18. The public regulation of commercial fisheries in Canada. Case Study No. 3. Economic Council of Canada, Ottawa. 76 p.

Munroe, C., and J. Stewart. 1981. Fishermen's organizations in Nova Scotia: the potential for unification. School of Business Administration, Dalhousie University, Halifax. 213 p.

Neis, B. 1981. Competitive merchants and class struggle in Newfoundland. Studies in Political Economy 5:127-143.

New Brunswick Department of Fisheries. (n.d.) Fisheries development plan, 1980-1985. Fredericton. 228 p.

Newfoundland and Labrador. Department of Fisheries. 1978. Setting a course: a regional strategy for development of the Newfoundland fishing industry to 1985. St. John's. 4 Vols.

Newfoundland and Labrador. Department of Fisheries and Department of Regional Economic Expansion. 1980. Inshore fishing port assessment study. St. John's. 5 Vols.

Newfoundland and Labrador. Royal Commission to Inquire into the Inshore Fishery of Newfoundland and Labrador. 1980. Report, Phase 1. St. John's. 54 p.

- 1981. Report, Phases II and III. St. John's. 512 p.

Newfoundland Fisheries Development Committee. 1953. Report. St. John's. 122 p.

NORDCO Ltd. 1981. It were well to live mainly off fish: the place of northern cod in Newfoundland's development. Prepared for the Government of Newfoundland and Labrador, St. John's. 211 p.

- 1982. A study of the potential socio economic effects on the Newfoundland fishing industry from offshore petroleum development. St. John's. 211 p.

- 1983. A study of the potential socio-economic effects upon the Nova Scotia fishery from offshore petroleum development. St. John's. 171 p.

Nova Scotia Department of the Environment. 1983. Venture development project: report of the Sable Island environmental assessment panel. Halifax. 55 p.

Nova Scotia Department of Fisheries. 1977. Sea, salt and sweat: a story of Nova Scotia and the vast Atlantic fisheries. Halifax. 109 p.

- 1982. Nova Scotia fisheries atlas. Halifax. 44 p.

Pepper, D.A. 1979. Men, boats and fish in the Northwest Atlantic: a case history of fisheries management. Ph.D. dissertation. University of Wales, Institute of Science and Technology in the Department of Maritime Studies. Cardiff. 591 p.

Poetschke, T. 1984. Community dependence on fishing in the Atlantic provinces. Canadian Journal of Regional Sciences 7(2):211-216.

Prince Edward Island. 1981. Report on the Commission of Enquiry into the P.E.I. Fishery. Charlottetown. 2 Vols.

Pross, A.P. 1984. The fishery: Ali versus Frazier. Pages 81-112 *in* B. Jamieson, ed. Governing Nova Scotia: policies, priorities and the 1984-85 budget. School of Public Administration, Dalhousie University, Halifax.

Quebec. Bureau de la Statistique du Québec. Pêche commerciale (annual). Statistiques des pêches maritimes du Québec (annual).

Quebec. Conseil Executif. Secretariat des Conférences Socio-Économiques. 1978. Les pêches maritimes: pour une stratégie quinquennale. Québec City. 62 p.

Raymond, J.L. 1985. Scotia-Fundy Region fishing community profiles. Can. Data Rep. Fish. Aquat. Sci. 540, Department of Fisheries and Oceans, Halifax. 460 p.

Ross, V. 1984. Fisherwoman: a novel. Pottersfield Press, Porter's Lake. 93 p.

Royal Commission Investigating the Fisheries of the Maritime Provinces and the Madgalen Islands. 1928. Report. Ottawa. 125 p.

Royal Commission on Seals and the Sealing Industry in Canada. 1986. Report. Ottawa. 3 Vols.

Royal Commission on the Economic Union and Development Prospects for Canada. 1985. Ottawa. 3 Vols.

Shortall, D. 1973. Environmental perception in two local fisheries: a case study from eastern Newfoundland. M.A. Thesis. Memorial University of Newfoundland, St. John's. 191 p.

Sinclair, P.R. 1983. Fishermen divided: the impact of limited entry licensing in northwest Newfoundland. Human Organization 42(4):307-313.

- 1984. Fishermen of northwest Newfoundland: domestic commodity production in advanced capitalism. Journal of Canadian Studies 19(1):34-47.

- 1985. From traps to draggers: domestic commodity production in northwest Newfoundland, 1850-1982. Social and Economic Studies No. 31, ISER, Memorial University of Newfoundland, St. John's. 171 p.

- 1986. The survival of small capital: state policy and the dragger fleet in north-west Newfoundland. Marine Policy 10(3):111-118.

Steinberg, C. 1973. Collective bargaining rights in the Canadian sea fisheries: a case study of Nova Scotia. Ph.D. dissertation. Columbia University, New York. 436 p.

- 1984. Structure and price determination in maritime port markets: a study of fishermen/buyer relations. Can. Ind. Rep. Fish. Aquat. Sci. 149, Department of Fisheries and Oceans, Ottawa. 52 p.

Stiles, G. 1976. The small maritime community and its resource management problems: a Newfoundland example. Pages 235-254 *in* D.M. Johnston, ed. Marine policy and the coastal community. Croom Helm, London.

- 1979. Labor recruitment and family crew in Newfoundland. Pages 189-208 *in* R. Andersen, ed. North Atlantic maritime cultures. Mouton, The Hague.

Task Force on Atlantic Fisheries. 1982. Navigating troubled waters: a new policy for the Atlantic fisheries. Ottawa. 379 p.

Tremblay, M.A., P. Charest and Y. Breton. 1969. Les changements socio-culturels à Saint Augustin. Les Presses de l'Université Laval, Québec. 182 p.

VanderZwaag, D.L. 1983. The fish feud: the U.S.-Canadian boundary dispute. Lexington Books, Lexington, Massachusetts. 135 p.

Wadel, C. 1969. Marginal adaptations and modernization in Newfoundland: a study of strategies and implications in the resettlement and redevelopment of outport fishing communities. Newfoundland Social and Economic Studies No. 7, ISER, Memorial University of Newfoundland, St. John's. 160 p.

Wallace, F.W. 1916. Shack locker: yarns of the deep sea fishing fleets. Hodder and Stoughton, Toronto. 303 p.

- 1935. Blue water: a tale of the deep sea fishermen. Musson, Toronto. 322 p.

Weeks, E., and L. Mazany. 1983. The future of the Atlantic fisheries. Institute for Research on Public Policy, Montréal. 112 p.

Wells, K. 1986. The fishery of Prince Edward Island. Ragweed Press, Charlottetown. 211 p.

Williams, R. 1979. Inshore fishermen, unionisation, and the struggle against underdevelopment today. Pages 161-175 *in* R.J. Brym and R.J. Sacouman, eds. Underdevelopment and social movements in Atlantic Canada. New Hogtown Press, Toronto.

Women's Unemployment Study Group. 1983. Not for nothing: women, work and unemployment in Newfoundland and Labrador. St. John's. 76 p.

Wright, G.D. 1984. Sons and seals: a voyage to the ice. Newfoundland Social and Economic Studies No. 29, ISER, Memorial University of Newfoundland, St. John's. 129 p.

Zulaika, J. 1981. Terranova: the ethos and luck of deep-sea fishermen. Newfoundland Social and Economic Studies No. 25, ISER, Memorial University of Newfoundland, St. John's. 124 p.